



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

MEMORANDUM

REPLY TO THE ATTENTION OF:
SSMQA

DATE: DEC 08 1989

SUBJECT: Review of the First Draft, PRP-Lead Quality Assurance Project Plan for Phase II Remedial Investigation/Feasibility Study Activity at the American Chemical Services Site in Griffith, Indiana

FROM: *Madeline C. Roug*
James H. Adams, Jr., Chief
Quality Assurance Section

TO: James Mayka, Chief
Illinois/Indiana Section

ATTENTION: Robert Swale, RPM

We have reviewed the first draft PRP-Lead Quality Assurance Project Plan (QAPjP) for Phase II Remedial Investigation/Feasibility (RI/FS) Study activities at the American Chemical Services (ACS) site in Griffith, Indiana, which was received by the Quality Assurance Section (QAS) on December 6, 1989 (QAS Log-In No. 1101). We find this QAPjP is not acceptable because it not only does not constitute as an "Addendum QAPjP" but also contains several major technical deficiencies. These major technical deficiencies were verbally transmitted by phone to Mr. Robert Swale, RPM, on December 7, 1989. This memorandum documents all of the deficiencies, including those already transmitted by phone to rpm, which need to be properly addressed before this subject QAPjP can be approved.

Our comments on the current draft QAPjP are summarized as follows:

I. SIXTEEN (16) QAPjP ELEMENTS

It is necessary to address all of the 16 QAPjP elements because many changes such as personnel, sample network design and rationale, project objectives, sampling procedures etc. may have occurred ever since phase I activity. Please provide cover pages to address each QAPjP element. Information documented under each QAPjP element of the Phase I may be referenced. Any deviation from Phase I QAPjP shall be clearly documented.

II. PROJECT DESCRIPTION

A. In Table 1 (Summary of Phase II Site Characterization), the following shall properly addressed:

1. The required trip blank samples for VOA water samples are not addressed. Please add a footnote to address this deficiency. NOTE:

Trip blank sample shall be collected at frequency of one per shipping cooler of WIA water samples.

2. Groundwater samples for total metals and total suspended solid (TSS) shall be collected as separated samples because they require different preservation. Please address it properly.
3. Groundwater samples for cyanide analysis shall NOT be field filtered. Please address it properly.
4. Footnote #6 indicates that parameters need for each specific analysis of the "Natural Soils-Waste Boring" will be determined in the field; however, it is not clear what type of field screening/measurements will be used to provide the needed database for these determination. Please address it properly.
5. Please change "Aquifer Matrix S. Samples" to "Aquifer Matrix-Surface Water samples."

III. SUPPLEMENTAL WORK PLAN (APPENDIX A)

The description of Phase II RI activities provided in the Supplemental Work Plan (SWP) is inconsistent with that summarized in Table 1 of QAPJP. The following deficiencies shall be properly addressed

- A. The sampling and analysis of private well samples are not addressed in the SWP. Please address it properly. NOTE: The detailed sampling procedure for collecting private well water samples, and the detailed Standard Operating Procedures (SOPs) for the analysis of private well water with low detection limits shall be attached to the addendum QAPJP.
- B. In the third paragraph of page 6 (SWP), the description on the number of soil samples to be collected and analyzed is rather confusing. Please revise it for clarity.
- C. No site map indicating the sampling locations of private well samples is provided. Please address it properly.
- D. In Figure 2, only three (3) of the proposed four (4) monitoring wells are indicated on the map. Please indicate where the fourth well will be.
- E. In Table 2, the intended usages of data obtained from the sampling and analysis of private well water samples are not addressed. Please address it accordingly.
- F. In Item F (page 7), the collection of surface water samples is not addressed. Please address it accordingly.

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- E. In Table 2, the intended usages of data obtained from the sampling and analysis of private well water samples are not addressed. Please address it accordingly.
- F. In Item E (page 7), the collection of surface water samples is not addressed. Please address it accordingly.

IV. STANDARD OPERATING PROCEDURES (APPENDIX B)

The so-called Standard Operating Procedures (SOPs) provided in this appendix are not acceptable because they are not site specific and lack of details. Our comments for each SOP is as follows:

A. Groundwater Screening/Soil Gas Sampling Procedure SOP (Appendix B1)

This SOP is too generic and poorly organized, and shall be rewritten according to the Region V Guideline for the Preparation of Standard Operation Procedures (SOPs) for Both Field and Laboratory Measurements. Please note that, since this SOP is for the analysis of both soil gas and water samples, it shall include information such as sample collection, calibration procedures, analysis, etc. for both sample matrix. The SOP shall identify the instrument, GC columns and GC column conditions to be used, target compounds to be monitored, method detection limits for all compounds required quality controls, etc. It shall be noted that, for the calibration of instrument, the initial calibration shall include three level of concentrations in order to determine the usable, or dynamic linear ranges for all compounds. Furthermore, TRACER shall provide method validation data in the SOP.

B. Reduction/Oxidation Field Sampling SOP (Appendix B2)

The attached SOP is nothing but a manufacturer's manual. Please provide the appropriate SOP written per Region V Guideline.

C. Dissolved Oxygen Field Sampling SOP (Appendix B3)

See comment on Appendix B2 of this memo.

D. Total Organic Carbon Laboratory Analysis SOP (Appendix B4)

This is not a SOP because it contains nothing but some information copied from Region V Special Analytical Services (SASs) document. Please note, since Warzyn Laboratory will provide this analysis, the detailed SOP which is used by Warzyn lab shall be attached to the QAPJP. The SOP shall be documented per Region V Guideline for the Preparation of SOPs.

E. Analysis of Private Well Water Samples with Low Detection Limits

Since CompuChem is to provide the analysis of private well water samples, the detailed CompuChem SOP shall be attached to the QAPJP. Please address it.

To expedite the QAPJP approval process, we strongly suggest that RPM shall forward

QAS' review memo to contractors in a timely fashion (i.e., 2 days after receiving the memo). We estimate that 7 working days shall be adequate to address all of the deficiencies mentioned above.

We also strongly suggest that, after PRP's QAPjP preparer has reviewed the QAS comments, a QAPjP meeting or conference call shall be held between QAS, RPM, QAPjP preparer, and other concerned parties, including laboratory personnel. The QAPjP meeting or conference call will improve communication between QAS and all concerned parties, and will thus minimize the number of comments on, or revision of QAPjP. As a results of the conference call/meeting, the QAPjP approval process can be shortened. Furthermore, we would like to receive a copy of the RPM's memo to QAPjP preparer if there is any deviation from QAS' original comments.

cc: Cheng-Wen Tsai, ESD/QAS